

## **ARKWOOD SUPERFUND SITE**

### **Chronology of Site Events and Remedial Actions**

- 1950's Railroad excavates fill for embankment.
- 1962 Arkwood, Inc. commences wood-treating operations.
- 1973 MMI leases site and continues to operate Arkwood.
- 1974 Sinkhole sealed; use of railroad ditch discontinued.
- 1984 Plant operation ceases.
- 1989 The Site is added to the NPL.
- 1990 The RI/FS is completed by MMI and approved by EPA.
- 1990 EPA issues a Record of Decision (ROD) for the Site.
- 1992 Entry of a corrected Consent Decree (CD) between EPA and MMI for Site remediation.
- 1992 EPA approves a Remedial Design Work Plan (RDWP) for the Site.
- 1993 A Preliminary Engineering Report (PER) is approved by EPA for the Site.
- 1994 Remedial Action for soil commences.\*
- 1995 Remedial Action for soil is complete.
- 1997 Remedial Action for groundwater commences: An ozone treatment system is installed at New Cricket Spring.
- 2005 An ozone injection pilot system operation commences near former sinkhole.
- 2009 Cessation of injection of ozonated water near former sinkhole.
- 2010 Deed Notice recorded limiting property use to commercial/industrial, prohibits "disturbance" of property without prior express EPA approval.\*\*
- 2012 Cessation of injection of non-ozonated water near former sinkhole.
- 2014 Approval by EPA and ADEQ of groundwater remedy operations and monitoring.\*\*\*

#### **\*1994-1995: Remedial Action for Soil – Summary**

COCs (related to wood treating): pentachlorophenol (PCP); carcinogenic polynuclear aromatic hydrocarbons (c-PAHs); dioxin (mainly octa- and hepta- isomers),

Octa- and Hepta-Dioxin:

Toxicity – Hepta is 1/100<sup>th</sup>, Octa is 1/3,333<sup>rd</sup> of TCDD potency

Leachability – Essentially insoluble in water (<0.03 ppt TEQ)

Volatility- Nonvolatile, particle-sorbed solids at ambient conditions

Sediment Transport – Tightly sorbed, primary transport pathway

Soil Remediation: 8,700 cy excavation; dry sieved; 5,200 cy clean coarse backfilled; 3,500 cy offsite disposal. Soil cap: 11,600 cy top soil used to cap most of the site. Final inspection on 12/13/1995.

### **\*\*Corrected Deed Notice and Restrictions**

Expected to be recorded in 2014 – restricting disturbance of cap.

### **\*\*\*2014: Groundwater Remediation – Summary**

1990 RI – Shallow and deep groundwater sampled onsite.

1991-1992 - Dye trace conducted; injection upper area of site (“wood chips” location-east side of site) and New Cricket Spring; 79 sampling locations.

Downgradient spring and well sampling: quarterly 1996-1999 at 4 springs (New Cricket, Cricket, Walnut, Railroad Tunnel) and 3 private wells (W-9, W-11A and W-11B). No detections in wells and no detections at springs (other than New Cricket) after 1997, including confirmation sampling conducted in 2001.

New Cricket Spring: More than 95% PCP reduction from 1989 to present.